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(57) Abstract: There are provided pediocin-producing pediococci that have an enhanced survival property in the small intestine. The pediococci comprise in particular *Pediococcus acidilactici* isolated from human faeces. The pediococci are suitable for use in the gastrointestinal tract of humans to provide a health-promoting action, in particular against infection by multi-resistant pathogens. Also provided herein are compositions incorporating such pediocin-producing pediococci.

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